

WHAT IS CLAIMED IS:

1. A light emitting device comprising:
 - a substrate having a pixel portion; and
 - 5 a plurality of EL elements in the pixel portion, at least one of the EL elements comprising an EL layer comprising a triplet compound, wherein the EL layer comprises a plurality of hole transporting layers.
2. A light emitting device comprising:
 - 10 a substrate having a pixel portion; and
 - at least one first EL element in the pixel portion, the first EL element comprising a first EL layer comprising a triplet compound;
 - at least one second EL element in the pixel portion, the second EL element comprising a second EL layer comprising a singlet compound,
 - 15 at least one of the first and second EL layers comprises a plurality of hole transporting layers.
3. A light emitting device comprising:
 - a substrate having a pixel portion; and
 - 20 at least one first EL element in the pixel portion, the first EL element comprising a first EL layer comprising a triplet compound wherein the first EL element comprises;
 - a hole injection layer in contact with an anode;
 - a hole transporting layer in contact with the hole injection layer;
 - 25 a light emitting layer in contact with the hole transporting layer;
 - a hole blocking layer in contact with the light emitting layer;
 - an electron transporting layer in contact with the hole blocking layer;
 - and
 - a cathode in contact with the electron transporting layer,

at least one second EL element in the pixel portion, the second EL element comprising a second EL layer comprising a singlet compound,

wherein the hole transporting layer of the first EL layer comprises a plurality of hole transporting layers.

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4. An electric appliance having a light emitting device comprising:

a substrate having a pixel portion; and

a plurality of EL elements in the pixel portion, at least one of the EL elements comprising an EL layer comprising a triplet compound,

10 wherein the EL layer comprises a plurality of hole transporting layers.

5. An electric appliance having a light emitting device comprising:

a substrate having a pixel portion; and

15 at least one first EL element in the pixel portion, the first EL element comprising a first EL layer comprising a triplet compound;

at least one second EL element in the pixel portion, the second EL element comprising a second EL layer comprising a singlet compound,

at least one of the first and second EL layers comprises a plurality of hole transporting layers.

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6. An electric appliance having a light emitting device comprising:

a substrate having a pixel portion; and

25 at least one first EL element in the pixel portion, the first EL element comprising a first EL layer comprising a triplet compound wherein the first EL element comprises;

a hole injection layer in contact with an anode;

a hole transporting layer in contact with the hole injection layer;

a light emitting layer in contact with the hole transporting layer;

a hole blocking layer in contact with the light emitting layer;

an electron transporting layer in contact with the hole blocking layer;
and

a cathode in contact with the electron transporting layer,
at least one second EL element in the pixel portion, the second EL element
5 comprising a second EL layer comprising a singlet compound,
wherein the hole transporting layer of the first EL layer comprises a plurality
of hole transporting layers.

7. A light emitting device according to claim 3, wherein the hole injection layer
10 comprises a layer containing copper phthalocyanine, the hole transporting layer comprises
a layer containing MTDATA and a layer containing α -NPD, the light emitting layer
comprises a layer containing CBP and Ir (ppy)₃, the hole blocking layer comprises a layer
containing BCP, and the electron transporting layer comprises a layer containing Alq₃.

15 8. A light emitting device according to claim 2, wherein the first EL element
emits red light and the second EL element emits blue or green light.

9. A light emitting device according to claim 3, wherein the first EL element
emits red light and the second EL element emits blue or green light.

20 10. A light emitting device according to claim 2, wherein the first EL element
emits blue light and the second EL element emits red or green light.

11. A light emitting device according to claim 3, wherein the first EL element
25 emits blue light and the second EL element emits red or green light.

12. A light emitting device according to claim 2, wherein the first EL element
emits green light and the second EL element emits red or blue light.

13. A light emitting device according to claim 3, wherein the first EL element emits green light and the second EL element emits red or blue light.

14. A light emitting device according to claim 2, wherein the first EL element
5 emits red or blue light and the second EL element emits green light.

15. A light emitting device according to claim 3, wherein the first EL element emits red or blue light and the second EL element emits green light.

10 16. A light emitting device according to claim 2, wherein the first EL element emits red or green light and the second EL element emits blue light.

17. A light emitting device according to claim 3, wherein the first EL element emits red or green light and the second EL element emits blue light.

15 18. A light emitting device according to claim 2, wherein the first EL element emits blue or green light and the second EL element emits red light.

19. A light emitting device according to claim 3, wherein the first EL element
20 emits blue or green light and the second EL element emits red light.

20. A light emitting device according to claim 2, wherein the hole transporting layer has a laminate structure of two to four layers.

25 21. A light emitting device according to claim 3, wherein the hole transporting layer has a laminate structure of two to four layers.

22. A light emitting device according to claim 1 wherein the transporting layer includes a layer containing MTDATA and a layer containing α -NPD.

23. A light emitting device according to claim 2, wherein the transporting layer includes a layer containing MTDATA and a layer containing α -NPD.

5 24. A light emitting device according to claim 3, wherein the transporting layer includes a layer containing MTDATA and a layer containing α -NPD.

25. A light emitting device according to claim 8, wherein the transporting layer includes a layer containing MTDATA and a layer containing α -NPD.

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26. A light emitting device according to claim 9, wherein the transporting layer includes a layer containing MTDATA and a layer containing α -NPD.

15 27. A light emitting device according to claim 10, wherein the transporting layer includes a layer containing MTDATA and a layer containing α -NPD.

28. A light emitting device according to claim 11, wherein the transporting layer includes a layer containing MTDATA and a layer containing α -NPD.

20 29. A light emitting device according to claim 12, wherein the transporting layer includes a layer containing MTDATA and a layer containing α -NPD.

30. A light emitting device according to claim 13, wherein the transporting layer includes a layer containing MTDATA and a layer containing α -NPD.

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31. A light emitting device according to claim 14, wherein the transporting layer includes a layer containing MTDATA and a layer containing α -NPD.

32. A light emitting device according to claim 15, wherein the transporting layer

includes a layer containing MTDATA and a layer containing α -NPD.

33. A light emitting device according to claim 16, wherein the transporting layer includes a layer containing MTDATA and a layer containing α -NPD.

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34. A light emitting device according to claim 17, wherein the transporting layer includes a layer containing MTDATA and a layer containing α -NPD.

35. A light emitting device according to claim 18, wherein the transporting layer
10 includes a layer containing MTDATA and a layer containing α -NPD.

36. A light emitting device according to claim 19, wherein the transporting layer includes a layer containing MTDATA and a layer containing α -NPD.

15 37. A light emitting device according to claim 20, wherein the transporting layer includes a layer containing MTDATA and a layer containing α -NPD.

38. A light emitting device according to claim 21, wherein the transporting layer includes a layer containing MTDATA and a layer containing α -NPD.

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39. A light emitting device according to claim 7, wherein the layer containing α -NPD is sandwiched between the light emitting layer and the layer containing MTDATA.

25 40. A light emitting device according to claim 22, wherein the layer containing α -NPD is sandwiched between the light emitting layer and the layer containing MTDATA.

41. A light emitting device according to claim 23, wherein the layer containing

α -NPD is sandwiched between the light emitting layer and the layer containing MTDATA.

42. A light emitting device according to claim 24, wherein the layer containing
5 α -NPD is sandwiched between the light emitting layer and the layer containing MTDATA.

43. A light emitting device according to claim 25, wherein the layer containing
 α -NPD is sandwiched between the light emitting layer and the layer containing
10 MTDATA.

44. A light emitting device according to claim 26, wherein the layer containing
 α -NPD is sandwiched between the light emitting layer and the layer containing MTDATA.

15 45. A light emitting device according to claim 27, wherein the layer containing
 α -NPD is sandwiched between the light emitting layer and the layer containing MTDATA.

20 46. A light emitting device according to claim 28, wherein the layer containing
 α -NPD is sandwiched between the light emitting layer and the layer containing MTDATA.

47. A light emitting device according to claim 29, wherein the layer containing
25 α -NPD is sandwiched between the light emitting layer and the layer containing MTDATA.

48. A light emitting device according to claim 30, wherein the layer containing
 α -NPD is sandwiched between the light emitting layer and the layer containing

MTDATA.

49. A light emitting device according to claim 31, wherein the layer containing α -NPD is sandwiched between the light emitting layer and the layer containing
5 MTDATA.

50. A light emitting device according to claim 32, wherein the layer containing α -NPD is sandwiched between the light emitting layer and the layer containing
MTDATA.

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51. A light emitting device according to claim 33, wherein the layer containing α -NPD is sandwiched between the light emitting layer and the layer containing
MTDATA.

15 52. A light emitting device according to claim 34, wherein the layer containing α -NPD is sandwiched between the light emitting layer and the layer containing
MTDATA.

53. A light emitting device according to claim 35, wherein the layer containing
20 α -NPD is sandwiched between the light emitting layer and the layer containing
MTDATA.

54. A light emitting device according to claim 36, wherein the layer containing α -NPD is sandwiched between the light emitting layer and the layer containing
25 MTDATA.

55. A light emitting device according to claim 37, wherein the layer containing α -NPD is sandwiched between the light emitting layer and the layer containing
MTDATA.

56. A light emitting device according to claim 38, wherein the layer containing α -NPD is sandwiched between the light emitting layer and the layer containing MTDATA.

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57. An electric appliance according to claim 4, wherein the electric appliance is selected from the group consisting of a display device, a video camera, a head mounted display, an image reproducing device equipped with a recording medium, a goggle type display, a personal computer, a cellular phone, an audio reproducing device, and a digital

10 camera.

58. An electric appliance according to claim 5, wherein the electric appliance is selected from the group consisting of a display device, a video camera, a head mounted display, an image reproducing device equipped with a recording medium, a goggle type

15 display, a personal computer, a cellular phone, an audio reproducing device, and a digital camera.

59. An electric appliance according to claim 6, wherein the electric appliance is selected from the group consisting of a display device, a video camera, a head mounted display, an image reproducing device equipped with a recording medium, a goggle type display, a personal computer, a cellular phone, an audio reproducing device, and a digital camera.

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